User manual

Vacuum mixers

WAMIX Comfort Plus /Comfort

Wamix Comfort Plus

Wamix Comfort

WASSERMANN DENTAL-MASCHINEN

CE

Die Basis für Ihr Labor

Dear customer,

Thank you for choosing a product from the Wassermann range. Wassermann dental equipment incorporates the highest standards of quality and the latest technology. In order to enjoy maximum performance and years of trouble-free operation, please read this user manual carefully before you start work, and operate the unit according to the recommended guidelines.

Please keep this user manual in a safe place where it can be referred to at any time.

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Wassermann Dental-Maschinen GmbH
Rudorffweg 15-17
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WASSERMANN DENTAL-MASCHINEN
Die Basis für Ihr Labor

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1 Features

WAMIX is a manufacturer of vacuum mixers used not only for mixing all kinds of plasters, embedding media and silicones, but also designed for specialised dental procedures and for vacuum-rinsing of prostheses.

When mixing silicones, make sure that the beaker is **only filled to the max. height for silicone.** Otherwise, silicone could penetrate the interior of the unit itself.

Units have separate drives for vacuum generation and for the mixing mechanism. An audible signal indicates the end of the mixing process.

This is controlled by a microchip in the **Wamix Comfort Plus** and **Comfort** models.

Because the mixing beaker on the **Comfort** is held to the rim by vacuum, a vacuum is guaranteed. The **Wamix Comfort Plus** has a beaker which allows the mixture to age and be spatulated without a vacuum. The **Wamix Comfort Plus** can also change the direction of mixing automatically after a set interval.

Mixers are supplied as wall units, but can be converted for tabletop use at any time. (For accessories, see 8.4)

2 For your safety

2.1 Follow the user manual

You should read and carefully follow the instructions in this user manual for setting up and operating the unit. The unit is intended only for the specified purpose.

Especially important points are highlighted as follows:

Warning!

This is a warning of risk situations and dangers. Failure to observe this warning could be life-threatening. These warnings must be observed.

Information!

This symbol draws your attention to specific features that must be observed.

2.2 Safety guidelines

This equipment is designed to operate at 220-240 V, 50/60 Hz. Make sure it is always connected to the appropriate power supply.
Always remove the plug from the power socket before undertaking maintenance or cleaning work.
A locking hook underneath each unit prevents it coming loose once it has been mounted in the bracket.
Allow the condensers to discharge before opening the unit.

2.3 Responsibility for operation or damage

The responsibility for operating the unit lies exclusively with the owner or user if the said unit is incorrectly serviced, maintained or altered by persons not employed by an authorised dealer or if the unit is used in a manner contrary to its specified purpose.
The unit must be maintained and operated in accordance with this user manual. Wassermann Dental-Maschinen GmbH is not responsible for damage arising from the ***nonobservance*** of these instructions.
Guarantee and responsibility provisions contained in the sales and supply conditions of Wassermann Dental-Maschinen GmbH are not extended by these instructions.

Ensure that this user manual is accessible at all times and has been read and understood.

3 Applications

WAMIX units are used for mixing all kinds of plasters, embedding media and silicones under vacuum, or without vacuum in the case of the **Wamix Comfort Plus** which has a beaker holder.

The vacuum in the **Wamix Comfort Plus** version can be set to between 380 mbar and 985 mbar with the turn of a knob.

This unit is also suitable for vacuum rinsing of models for special dental procedures. The insulating layer between the model and the prosthesis cannot separate prematurely because the model remains moister in the pressure-embedding unit than when water is used.

4 Before you start

4.1 Unpacking/ Transport

- Remove the packing materials and place the unit on a firm, level surface or use the supplied bracket to mount it on the wall. Check that all items have been supplied (see 8.4).
- Before transporting the unit, ensure that it has been unplugged from the power socket. Make sure that it is packed correctly in order to avoid accidental damage.

4.2 Location / storage

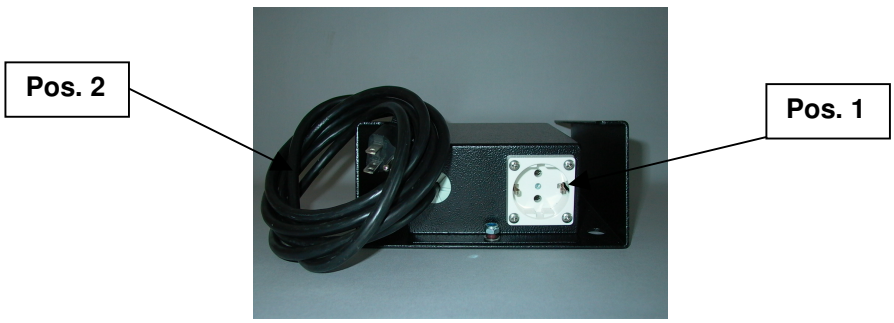
- Place the unit on a flat surface where it is to be used or mount it on a wall.
- If mounting on a wall, ensure that the wall is strong enough to support the unit. Detach the wall mount from the unit and use it as a template for drawing a **drilling scheme** to drill the ∅ 8 mm diameter dowel holes. Leave **at least 30-35 cm free space** beneath the unit.
- Always mount the unit allowing sufficient room for working and servicing (see dimensions) **- do not set up out of doors! -**
- If the unit is to be stored for an extended period, protect it from moisture and dust.

Accidental mixing is not possible because the motor cannot start until the beaker is held to the rim by the vacuum. The mixing time also needs to be set.

Before you start your vacuum mixer, make sure that the safety hook (under the unit) has been turned through 180º (should fit in behind the wall mount). Pull the hook forwards using the slot, then retighten the screw on the hook to prevent it coming loose.

Warning: Use only beakers with the new curved seal (171708).

When using the 115 V version you have to install the power pack Order no. 171788. Therefore you plug in the conductor of the Wamix into the socket (Pos.1) of the power pack. The conductor of the power pack (Pos.2) has to be pluged into the house socket. In order to mount the power pack at the table stand please use the enclosed screws M6.



5 Starting the mixer

- Check that the mains voltage and the voltage requirements of the mixer are the same, then plug in the power cable.
- Turn on the green switch.

i **Switch the vacuum mixer off if the equipment will not be used for an extended period.**

6 Operating the mixer

i **All instructions for using the unit, whether verbal, written or in the form of practical guidance, are based on individual experience and experimentation and can only be regarded as guidelines.**

i **Fill the beaker to the *Max marking*. The vacuum will draw any excess material into the system.**

i **The beaker will come away automatically once the vacuum is removed. To avoid damaging the seal, *never* remove the beaker by force.**

i **The sealing surfaces between the beaker and the plate must be clean - likewise the rotor fastenings and the beaker lid - to ensure trouble-free operation.**

6.1 Operation / Programming WAMIX Comfort

After turning on the power ...

Display:

6.1.1 Starting the automatic program with vacuum

Display:

Press

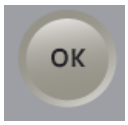
Display:

To start the program, insert the beaker in the flange from below. Hold the beaker until mixing starts.

Press

The program stops automatically.
Warning: Hold on to the beaker.

6.1.2 Changing from German to English

Use and 

Display:

Press the buttons again to change back.

6.1.3 Programming

Up to 15 programs are possible using the following parameters.

- Program name: up to 8 characters
- Pre-vacuum: up to 99 seconds
- Mixing time: up to 240 seconds
- Post-vacuum: up to 99 seconds
- Times entered as a "0" will be ignored.

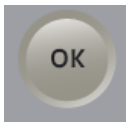
6.1.4 Sequence: (first time)

Display:

Press

Display:

Use or to select the program to be changed.

Press 

Entering program name

Display:

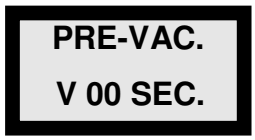
Select name with or

Next name/ previous name.

Press . End of name entry.

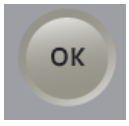
- **Entering pre-vacuum**

Display:



Select time with or .

Delete / zero value.

Press 

Entering mixing time

Display: **MIXING TIME 120 SEC.**

Select time with or .

Delete / zero value.

Press

- **Entering post-vacuum**

Display: **POST-VAC. N 00 SEC**

Select time with or

Delete / zero value.

Press

to store.

6.1.5 Starting program 01 (to 15)

Display:

COMFORT
D A

Press

Display:

PROG. 01
NAME

Select the program with or

Press

Display:

INSERT
BEAKER

To start the program, insert the beaker in the flange from below. The beaker must be held until the mixer stops.

Display:

... mbar
... SEC

The individual program steps are carried out.

An audible signal indicates the end of the program.

Display:

... mbar
... SEC

6.1.6 Changing between main and program menu

Display:

Press

Display:

6.1.7 Interrupting program with START / STOP button

After you press **START** / **STOP**, the display reads "**INSERT BEAKER"**. If the program is not to be completed for any reason, press **START** / **STOP** again to terminate it.
Depending on whether the program was in automatic or manual mode, the display reads "**COMFORT D A"** or "**PROG. 01"**, for example.

6.1.8 Changing the time during program operation

It is possible to change the time during program operation in ***manual mode***.

Use or to extend or shorten the time.

This allows you to change the programmed times without interrupting the program.

6.2 Operation / Programming WAMIX Comfort Plus

After turning on the power ...

Display:

6.2.1 Starting the automatic program with vacuum

Display:

Press

Display:

To start the program, insert the beaker under the rim using the beaker holder. The slowly turning motor allows the beaker to be inserted easily.

Press

The automatic program is stopped.

6.2.2 Changing from German to English

Use and

Display:

Press the buttons again to change back.

6.2.3 Programming

Up to 15 programs are possible using the following parameters.

- Program name: up to 8 characters
- Ageing: up to 99 seconds
- Spatulating: up to 99 seconds
- Vacuum: full/none
- Pre-vacuum: up to 99 seconds
- Speed: 200-600 rpm
- Mixing time: up to 240 seconds
- Post-vacuum: up to 99 seconds
- Times entered as a "0" will be ignored.

•

6.2.4 Sequence: (first time)

Display:

Press

Display:

Use or to select the program to be changed.

Press

- **Entering program name**

Display:

Select name with or

Next name/ previous name.

Press to end name entry.

- **Entering ageing**

Display:

Select time with or

Delete / zero value.

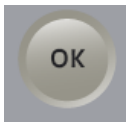
Press

- **Entering spatulating**

Display:

Select time with or

Delete / zero value.

Press 

- **Entering vacuum**

Display:

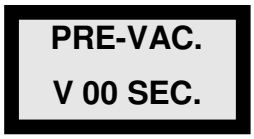
Select vacuum with or

Delete / zero value.

Press

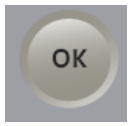
- **Entering pre-vacuum**

Display:



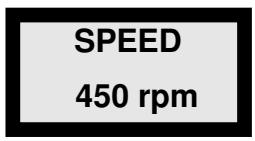
Select time with or

Delete / zero value.

Press 

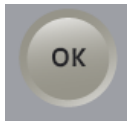
- **Entering speed**

Display:



Select speed with or

Delete / zero value.

Press 

- **Entering mixing time**

Display:

Select time with or

Delete / zero value.

Press

- **Entering post-vacuum**

Display:

Select time with or

Delete / zero value.

Press

to store.

6.2.5 Starting program 01 (to 15)

Display:

COMFORT
PLUS D A

Press

Display:

PROG. 01
NAME

Select the program with or

Press

Display:

INSERT
BEAKER

To start the program, insert the beaker under the rim using the beaker holder.

Display:

… mbar
… SEC.

The individual program steps are carried out.

An audible signal indicates the end of the program.

Display:

… mbar
… SEC.

6.2.6 Changing between main and program menu

Display:

Press

Display:

6.2.7 Interrupting program with START / STOP button

After you press **START** / **STOP**, the display reads "**INSERT BEAKER"**. If the program is not to be completed for any reason, press **START** / **STOP** again to terminate it.

Depending on whether the program was in automatic or manual mode, the display reads "**COMFORT PLUS D A"** or "**PROG. 01“**, for example.

6.2.8 Changing the time during program operation

It is possible to change the time during program operation in manual mode.

Use or to extend or shorten the time.

This allows you to change the programmed times without interrupting the program.

6.2.9 Vacuum adjustment

The vacuum can be set to between 380 mbar and 985 mbar. To do so, turn the knob on the left side of the unit. Turn the knob towards you to reduce the vacuum and towards the wall to increase it.

7 Troubleshooting

Problem	Likely cause	Likely solution
Mixer does not start	Blown fuse	Replace fuse and determine cause; otherwise, call Service Center
	No mixing and/or spatula time programmed	Set mixing and/or spatula time
Vacuum too low	Filter (vacuum) blocked	Check filter – clean and/or change (see 8.2)
	Leaking seal on vacuum flange for mixing beaker	Replace seal
	Open valve	Turn valve on unit to the left.
No vacuum	Beaker filled above *Max* mark, i.e., mixing ingredients in system	Clean system, i.e., maintenance by Service Center
	Faulty vacuum pump	Maintenance by Service Center
	No vacuum programmed	Set vacuum to **Full** and confirm with **OK**
Beaker falls out	Faulty seal	Replace seal (171708)

i **If the above suggestions do not solve the problem, get in touch with your dental depot or our Service staff.**

Service number : Wassermann Dental – Maschinen

+49 (0)40 / 730 926 – 0

8 Care and maintenance

8.1 Cleaning

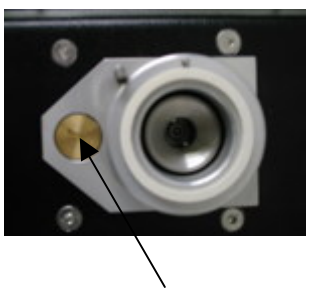
The unit should be cleaned at regular intervals to ensure problem-free operation.
It requires only normal cleaning (sponge, damp cloth, mild detergent) - no chemical additives.
Solvents ***must not*** be used to clean the front panel!
Keep the beaker clean. When not in use, fill with water to just below the mixer.
The **model plate** must always be legible and should not be removed.

8.2 Servicing

i **Allow the condensers to discharge *before* you open the mixer.**

Our vacuum mixers do not require servicing. Make sure the unit is kept clean and that the rim seal for the beaker (vacuum seal) is not damaged.

Changing the filter:



1

Remove screw (1) (on the left, near the mixer mechanism on the rim under the unit). The filter swings loose at the forward end of the screw. After changing the filter, do up the screw *finger-tight* (do not forget the O-ring).

8.3 Warranty

The warranty period for our instruments is 12 months. If faults occur within the warranty period, contact your dental depot or get in touch directly with our Service department.
Vacuum mixers should only be operated in perfect condition. If faults occur which could harm operators or third parties, the unit should not be used until it has been fixed.
The warranty does not cover damage caused by improper use, external mechanical causes, transport damage or interference with the unit by unauthorised persons.

8.4 Spare parts and accessories

Spare parts	
Item no.	Name
171219	Filter knob
171771	Security hook
380018	O-ring 9.75 x 1.78
380023	O-ring 8 x 1.9
380069	Seal D56 x D46 x 4 white, self-adhesive one side
511091	Rocker switch, green
511118	Protective cap for rocker switch
560111	Cap for black knob with white stripe
560112	Black knob with white stripe
582002	Fuse 2 A T 250 V - D 5 x 20
610025	Sintered filter (for vacuum)

If spare parts are necessary please contact our service hotline phone:
0049 (0)40 / 730 92 6-0

Included in delivery	**Item no.:**
Beaker medium cpl. 350 ml	171283
Wall mount	171766
Mounting set	171290
Accessories	**Item no.:**
Table stand	171760
Beaker extra small cpl. 75 ml (not for WAMIX Comfort plus)	171295
Beaker small cpl. 200 ml	171230
Beaker medium cpl. 350 ml	171283
Beaker large cpl. 600 ml	171237
Beaker extra large cpl. 1000 ml (not for WAMIX Comfort plus)	171269
Vacuum washing beaker 600 ml	171275

8.5 Repairs

Servicing or repairs to the unit must only be carried out by trained technicians. Only original spares are to be used. Responsibility for the product is voided if unauthorised persons alter it or if inappropriate components are installed.

9 Technical data

Wamix-Comfort Plus **Wamix-Comfort**	**Item no.: 171989** **Item no.: 171988***
Voltage*	220–240 V / 50/60 Hz
Power consumption	1.2 A (Si 2.0 A)
Output	225 W
W x H x D including wall mount without beaker mount W x H x D including wall mount *	225 x 365 x 408 mm 205 x 365 x 408 mm *
W x H x D including wall mount and beaker mount	225 x 610 x 408 mm
Weight	19.0 kg, 17.6 kg*
Sound level	≤ 70 dB(A)
Speed	200–600 min^{-1} in 50 min^{-1} steps 380 min^{-1}*
Vacuum	approx. 985 mbar adjustable approx. 985 mbar*
Mixing time	Up to 240 seconds adjustable
Safety class	IP 22

*Other voltages upon enquiry
Technical changes reserved

10 EC COMPLIANCE CERTIFICATE

in accordance with 2006/95/EG (low-voltage guidelines) and 2004/108/EG (EMV guidelines) and 98/37/EG (machinery guidelines)

Manufacturer: W A S S E R M A N N
Dental-Maschinen GmbH
Rudorffweg 15 - 17
D-21031 Hamburg

Product description: Vacuum mixer for dental applications

Model:		
	WAMIX Comfort Plus	(171989)
	WAMIX Comfort	(171988)
	WAMIX Comfort Plus 115V	(171984)
	WAMIX Comfort 115V	(171982)

Applicable standards:
DIN EN 61010-1:2004
DIN EN 61000-6-3:2005
DIN EN 61000-6-1:2002
DIN 45635-1:1984
DIN EN 60335-1:2007

Hiermit wird bestätigt, daß die oben bezeichnete Maschine den genannten EG-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above-mentioned machine complies with the described EC rules. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur de la Communité Européene. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los limites requeridos por el reglamento EC. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigen aan de machine worden aangebracht.

Place, date: Hamburg, 20.07.2007

Company stamp:

Signed: _____

Wilfried Wassermann
(Managing Director)

Notes:

WASSERMANN Dental-Maschinen GmbH
Rudorffweg 15 – 17, D-21031 Hamburg

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